4:30

827-3 Lipid Levels, Adherence to Medication, Baseline Characteristics in the Cholesterol and Recurrent Events (CARE) Study

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Background: Utilization of and adherence to lipid lowering treatment remain low in the community. In contrast, in the last year of follow-up of 4159 patients in CARE, the continuation rate for taking study medication was 86% in placebo (PL) and 94% in the pravastatin (PRA) group and these patients maintained an average 94% adherence to assigned medication based on pill counts over the course of the trial.

Results: In these patients with an MI but "average" cholesterol levels, PRA significantly reduced LDL cholesterol levels and the primary endpoint, fatal coronary event or non-fatal MI, by 24%. Treatment LDL levels were associated with improved outcomes. The average change in LDL from baseline was −41 mg/dl in the PRA group and −2 mg/dl in the PL group. This LDL change was linearly correlated with adherence in the PRA group ($p < 0.0001$) representing a 0.5 mg/dl decrease in LDL for each 1% increase in adherence. Adherence was the same in each treatment group and remained stable over the median follow up of 5 years. Using a stepwise regression model, better adherence to study medication was related to race (white) $p < 0.0001$, not being a current smoker $p < 0.0001$, sex (female) $p < 0.03$, and not being employed $p < 0.04$. Certain baseline characteristics including education, comorbidity with diabetes or hypertension, and body mass index did not correlate significantly with adherence.

Conclusions: Thus, PRA was well tolerated in CARE, adherence to assigned treatment remained high during active patient follow-up in this clinical trial, and adherence was correlated with improved reductions in LDL levels. Adherence to treatment was related most strongly to race and smoking status.

4:45

827-4 Associated Risk Factors do Not Prevent the Beneficial Effect of Aggressive Cholesterol Lowering: Post CABG Trial

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Background: The Post CABG trial (N Engl J Med 1997; 336: 153–162) showed in 1351 patients that an aggressive LDL-cholesterol lowering (AL) to 93–97 mg/dl during 4.3 years period compared to a moderate lowering (ML) to 132–136 mg/dl significantly delayed progression of atherosclerosis (lumen reduction ≥0.6 mm) in saphenous vein grafts placed 1 to 11 years previously (27% vs 39%: $p < 0.001$).

Methods: Using a graft-based analysis (generalized estimating equation model), the probabilities of progression (Prog) were obtained for both groups, AL and ML. The following risk factors (RF) were considered: smoking, diabetes mellitus, hypertension, HDL-cholesterol <40 mg/dl, triglycerides ≤145 mg/dl, and the number of RF.

Results: The same beneficial effect is observed as judged by a similar significant risk ratio (0.5 to 0.6), and no interaction between subcategories of RF. Detailed analyses of the number of risk factors are shown in the table below.

No. RF	Prog. (%)		P value	RR	(95% CI)
	AL	ML			
0–1	27.4	32.5	0.12	0.78	(0.58–1.05)
2	26.3	43.6	<0.0001	0.46	(0.32–0.66)
≥3	29.8	46.6	0.0001	0.49	(0.34–0.70)

Conclusion: LDL-cholesterol lowering to 95 mg/dl compared to 135 mg/dl delayed saphenous vein graft atherosclerosis to the same degree in patients with or without associated risk factors.

5:00

827-5 Does the Presence of Certain Cardiac Risk Factors Positively Influence Risk Factor Interventions?

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Screening and treatment of cardiac risk factors (RF) by physicians remains suboptimal. We explored the association between RF intervention and patient (pt) characteristics to identify predictors of risk factor interventions. A cross-sectional survey of 234 outpatients in a cardiology practice over 6 months (1996–97) was undertaken. Pts' clinical conditions, risk factors and interventions performed during the visits were abstracted from the medical record. Potential confounders were controlled for using logistic regression to determine the independent likelihood of risk factor interventions at individual visits. Of 234 pt visits, blood pressure (BP) measurement was reported in 94%, cholesterol (chol) testing in 15%, chol counseling in 16%, diet assessments in 43%, and diet counseling in 24%. Pts with high chol were more likely to have chol counseling (OR 12.2, 95%CI 5.2–28.5), chol testing (OR 11.8, 4.8–29.3), diet assessments (OR 3.6, 1.8–7.2) and diet counseling (OR 5.1, 2.3–11.2). Obese pts were more likely to have diet assessments (OR 12.4, 2.5–61.2) and diet counseling (OR 10.2, 2.8–37.7) but not BP or chol measurements. Diabetic pts were only more likely to have diet assessments (OR 2.9, 1.0–8.5). Hypertensive pts received less diet counseling (OR 0.37, 0.2–0.9). Age and sex had no effect on interventions.

Conclusion: Physicians more aggressively intervened with obese and hypercholesteremic pts compared to hypertensive or diabetic pts. Risk factor control may be improved by recognizing that certain baseline risk factors act as barriers to intervention.

5:15

827-6 Effect of Plasma Homocyst(e)ine Levels on Adverse Cardiovascular Outcomes After PTCA or CABG in EAST

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Background: The prognostic value of homocyst(e)ine (H(e)) levels in coronary artery disease (CAD) patients (pts) receiving PTCA or CABG was examined in the Emory Angioplasty vs. Surgery Trial (EAST).

Methods: Of 392 multivessel disease pts who were randomized to an initial strategy of PTCA or CABG, 295 had at least one H(e) level measured during the first 3 yrs of the study. The mean H(e) level was 12.8 ± 5.2 μmol/L, and was not different between PTCA and CABG pts. The pts were followed for any adverse cardiovascular outcomes (ACVO) including death, myocardial infarction (MI), stroke and additional revascularization procedure(s) (PTCA or CABG) (AddPro) for 5 yrs after the initial PTCA or CABG. Of 295 pts, 27 died, 55 suffered non-fatal MI, 18 had stroke and 114 experienced AddPro. The mean H(e) level was compared between pts with and without ACVO, and the % of pts with ACVO within 5 yrs was computed for each H(e) quartile (Q). The Q1 is H(e) <9.7, the Q2 is ≥9.7 and <11.7, the Q3 is ≥11.7 and <14.7, and the Q4 is ≥14.7 μmol/L, respectively.

Results:

H(e) and adverse cardiovascular outcomes

	Mean H(e)* μmol/L	% of pts in			
		Q1	Q2	Q3	Q4
Death	+3.5†	7	15	30	48‡
MI**	+0.3	25	29	24	22
Stroke	−0.9	22	33	33	12
AddPro	−0.2	26	26	24	24

* the difference in H(e) between pts with and without the adverse cardiovascular outcomes. † $p < 0.001$. ‡ $p \leq 0.01$. ** non-fatal MI.

Conclusions: In EAST, H(e) levels are a strong and graded predictor of mortality in CAD pts following PTCA or CABG. However, H(e) levels did not predict future non-fatal myocardial infarction, stroke or additional revascularization procedure(s) after initial PTCA or CABG. Clinical trials with H(e)-lowering therapy appear to be indicated.

828 Autonomic/Hormonal Modulation of Arrhythmias

Monday, March 30, 1998, 4:00 p.m.–5:30 p.m.
Georgia World Congress Center, Room 257W

4:00

828-1 Cerebral Vasoconstriction Occurs Prior to Systemic Vasodilatation in Neurocardiogenic Syncope

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Cerebral blood flow (CBF) may be affected in patients with neurocardiogenic syncope due to an abnormal neural reflex. We hypothesized that cerebral hemodynamics change independently from systemic vasodilatation. The mean arterial pressure (MAP with Finapres) and CBF velocities